

# 膜花天牛属五新种及一新记录\*

(鞘翅目:天牛科,花天牛亚科)

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膜花天牛属 (*Necydalis*) 以往隶属于花天牛亚科 Lepturinae, 70 年代以来,日本、苏联某些天牛分类专家主张膜花天牛族 *Necydalini* 从花天牛亚科独立出来,提升为亚科级,即 *Necydalinae*, 鉴于我们对该族缺乏成虫翅脉及幼虫的研究,因此本文仍将该族归入花天牛亚科。该族在我国包括两个属,即膜花天牛属及蜂花天牛属 (*Ulochaetes*),前者在全球约 40 余种,分布于古北区、新北区及东洋区,我国已知 17 种(含本文新种在内),其中 6 种分布于台湾(尚未见过标本);后者全球共 3 种,我国已知 1 种,分布于西藏墨脱,其它两种,分别分布于美国加利福尼亚及不丹。

笔者在整理膜花天牛属的标本时,发现 5 新种及 1 新记录,其中 3 新种的标本,由中国林科院热带林业研究所和甘肃森林病虫害普查队提供,在此表示感谢。新种模式标本除黑膜花天牛及肖黑膜花天牛的副模标本存放于广州中国林科院热带林业研究所外,其余模式标本均保存在中国科学院动物研究所。

## 1. 黑膜花天牛 *Necydalis nigra* 新种 (图 1)

雄虫: 体中等,细长,黑色,有时后足第 1 跗节为棕黑色,外貌酷似姬蜂或泥蜂。触角基部四节、前胸背板及足具光泽;体背面稀疏地被有细的、竖立的淡褐色毛,后胸腹部具银灰色毛。

头近圆形,后头突然收缩,与前胸前端约等宽;复眼大,突出,下叶长度两倍于颊,颊具细密刻点;唇基具细稀刻点;额近方形,具细脊纹刻点,中央有一条纵沟,与额前端弧沟中部垂直相连;后头脊纹刻点稍粗。触角基瘤突出,彼此分开;触角较粗,长可伸至腹部第 1 节;第 1 节膨大,与第 3 节近等长,而长于第 4 节;第 5—10 节的各节外端角钝突,略呈锯形;第 11 节端部锤形。前胸背板长略胜于宽,前、后缘具横沟,两侧中部微弧形;中区刻点较粗稀,两侧刻点细密,中央具一短纵凹。小盾片小,梯形,表面微凹,具刻点脊纹。鞘翅短缩,伸至后胸腹板端部,长度相当于两翅肩宽之和,每翅中部之后,外缘与中缝各自渐窄,端部圆形;肩隆突,翅端 1/6 隆起,其上具细密刻点,翅面具粗密刻点。膜翅外露于鞘翅之后,不折叠。后胸腹板十分发达,显著突出,表面密布粗刻点;腹部狭长,十分窄于后胸,第 1、2 节细长,柱形,端部第 4、5 节显著膨大,向下弯曲,十分类似泥蜂的腹部,第 5 节

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\* 本文承西南农业大学蒋书楠教授指教和提供部分参考文献;在鉴定种名过程中,又得到北京林业大学陈树榕副教授提供部分文献和借得一种神农架膜花天牛 (*N. shennongjiaensis* Chen, sp. nov.) 标本(待发表的新种);本文照片由买国庆同志拍摄,在此一并致谢。

端缘中部凹入,两侧略呈叶突,端部呈半圆形深凹,凹内密生灰褐色短毛。前足基节窝锥形突出,彼此接近,前足基节窝关闭;后足十分细长,腿节棒形,后腿节具细长柄,端部呈纺锤形膨大,短于腿节长度的1/2;后胫节细长,略长于后腿节,后足第1跗节膨大,与后胫端部等粗,显著长于以下各节之和。

体长 18—24mm; 体宽 2—3mm。

正模♂,海南省乐东县尖峰岭, 1350m, 1984. IV. 16, 顾茂彬采。

副模4♂,地点同上, 1984. IV. 11—17, 顾茂彬、陈芝卿采。

本种在体色上与 *N. ebenina* Bates 近似,主要区别是本种触角第4节短于柄节;前胸背板中央具一短纵凹。

## 2. 肖黑膜花天牛 *Necydalis similis* 新种 (图2)

雄虫: 黑色,触角柄节、腿节端部膨大部分及腹端部二或三节棕红色;触角端部七节及后胫节略带棕黑色;后足跗节黄色。体被竖立地淡棕色毛,后胸腹板具银灰色毛。

复眼下叶长度约三倍于颊,颊具细密刻点;唇基刻点细稀;额中央具一条细纵沟,前端弧沟不明显,头具脊纹刻点。触角中等粗,伸至腹部第1节,柄节与第3节等长,长于第4节。前胸背板长筒形,前、后缘横凹,两侧缘微弧形;胸面具粗刻点,中区刻点稀,中央有一条细纵线。鞘翅短缩,长仅伸至后胸腹板端部,翅长度短于两翅肩宽之和。每翅中部之后的两侧,各白渐窄,端部圆形;翅面具粗刻点,末端1/6隆起,其上具细刻点。膜翅外露,不折叠。后胸腹板十分发达,密布粗刻点。腹部狭长,第1、2节十分细,呈长柱形,端部4、5节显著膨大;第5节端缘中部凹入,两侧呈叶突,端部呈半圆形深凹,凹内密生淡褐色短毛。后腿节棒状,基部具细长柄;后胫节略长于后腿节。

体长 21.5—22.5mm; 体宽 2.5—3mm。

正模♂,海南省乐东县尖峰岭, 1350m, 1984. IV. 11, 林尤洞采。

副模1♂,地点同上, 1983. IV. 14, 顾茂彬采。

本种与上述黑膜花天牛新种非常接近,主要区别: 本种触角、腿节、后足跗节和腹部具不同的颜色;前胸背板具粗刻点;鞘翅长度短于两翅肩宽之和。

## 3. 缺脊膜花天牛 *Necydalis inermis* 新种 (图3)

雌虫: 体较小,狭长,黑色;触角柄节棕红色,有时部分黑色,第2—4节、第5节基半部及鞘翅棕色,端缘略带黑色。腹部前四节的各节中间,有一棕色横带;第5腹节除基缘黑色外,大部分棕色,个别的大部分为黑色。足棕黄色,有时后腿节具黑斑,跗节或胫节部分棕黑色。体被淡黄色绒毛,鞘翅绒毛略带丝光。

额横宽,前端有一横凹;复眼下叶两倍于颊;头中央有一条细纵沟,头具细密刻点。触角基瘤突起,左右分开;触角较细,长可伸至腹部第1节,柄节膨大,长于第3节,第3节略长于第4节。前胸背板宽略胜于长,前缘横凹显著,两侧缘中部稍隆突;背面刻点十分细密。小盾片三角形,端角圆形。鞘翅短缩,伸至后胸腹板端部,鞘翅长度略长于两翅肩宽之和,各翅端部分开,端缘圆形;翅面几无显著刻点,仅肩部略具皱脊,端缘之前略凹,近中缝有一短纵凹;膜翅外露,不折叠。后胸腹板较发达;腹部不显著窄于后胸腹板,背腹略扁平,各节宽大于长,末节略长大于宽,端稍窄,端缘微弧形。后腿节不呈明显棒状,基部不具细柄,后胫节长于后腿节;后足第1跗节细长,约等长于以下各节之和,其直径显著窄于

后胫节端部。

体长 9.5—11mm; 体宽 2.8—3.2mm。

正模♀(左触角缺损), 甘肃武威, 1981. VI. 13, 白俊生采。

副模 1♀, 甘肃武威, 1981. VI. 13, 白俊生采; 1♀, 甘肃天祝, 1981. V. 20, 白俊生采; 1♀, 青海祁连, 1965. VII. 28, 青海农科院植保所采。

本种与四川的脊胸膜花天牛 *N. sericella* Ganglbauer 十分接近, 主要区别是本种前胸背板中央不具纵脊; 触角柄节长于第 3 节; 前、中足腿节无黑斑。本种与 *N. sirexoides* Reitter 主要区别: 本种体较小; 鞘翅长于前胸; 腹部具两色。

#### 4. 两色膜花天牛 *Necydalis bicolor* 新种 (图 4)

雌虫: 体狭长, 外貌似胡蜂; 体深棕色, 前胸背板前、后缘, 前横凹, 鞘翅中缝前端 2/3 及腹部末端三节黑色; 腹部前面二节淡棕色, 其上具黑斑或黑横带; 足淡棕色, 腿节中部, 中、后胫节及附节为棕黑色; 体被金黄色绒毛。

复眼下叶两倍于颊; 额前端的弧凹中部与中央纵沟垂直相连; 头具十分细密刻点。触角基瘤突出, 左右分开; 触角较粗, 伸至鞘翅端部稍后, 柄节略短于第 3 节, 与第 4 节等长, 第 3 节略长于第 4 节。前胸背板宽略胜于长, 后端略宽于前端, 前、后横凹显著, 两侧缘具钝突; 背面具很细密刻点。小盾片三角形。鞘翅短缩, 长达腹部第 1 节基部, 膜翅外露, 鞘翅长度略长于两翅肩宽之和, 各翅端部 2/5 处的两侧渐窄, 端缘突出呈锐角; 翅面具微弱刻点, 肩部略显细皱脊, 端缘之前稍凹, 每翅中央有一条斜凹。后胸腹板十分发达。腹部窄于后胸, 圆筒形, 中部略膨大, 各腹节长大于宽, 末节端部稍窄, 端缘微凹。后足十分细长, 腿节端部逐渐膨大, 不具细柄, 后胫节长于后腿节; 后附节第 1 节十分长, 两倍长于以下各节之和。

体长 21mm; 体宽 3.5mm。

正模♀(左后足缺损), 广西龙胜白岩, 1,150m, 1963. VI. 18, 王书永采。

本种与台湾膜花天牛 *N. formosana* Kano 在外貌上类似, 主要区别是本种腹部具两色; 触角第 3 节长于第 4 节; 前胸背板宽略胜于长。

#### 5. 斑翅膜花天牛 *Necydalis maculipennis* 新种 (图 5)

雌虫: 体深棕色, 每鞘翅中部有一黑色斜斑; 前胸背板前、后缘, 前、后横凹, 鞘翅中缝, 部分后胸腹板及腹部黑色; 腹部前两节, 部分淡棕色。体被金黄色绒毛。

触角柄节短于第 3 节或第 4 节, 第 3 节长于第 4 节。鞘翅端缘突出呈锐角; 翅面几无刻点, 仅肩部及肩下具细皱脊。腹部背腹扁平。

体长 24.5mm; 体宽 4.5mm。

正模♀(后足附节缺损), 西藏察隅梯玉, 2280m, 1973. VIII. 26, 黄复生采。

本种与上述两色膜花天牛新种十分接近, 主要区别是本种鞘翅具黑斑; 前胸背板两侧稍凸起, 中央有一条细纵线。

#### 6. 柳膜花天牛 *Necydalis major* Linnaeus 1758 中国新记录

分布: 新疆(青河县); 苏联, 日本及欧洲。寄主: 柳, 杨, 李, 桤木。

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## FIVE NEW SPECIES AND ONE NEW RECORDS OF THE GENUS *NECYDALIS* FROM CHINA (COLEOPTERA: CERAMBYCIDAE, LEPTURINAE)

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So far we know there are 17 species of the genus *Necydalis* in our country (including 5 new species described herein), of which 6 species distributed in Province of Taiwan (We haven't seen them). Except paratype specimens of both *N. nigra* sp. nov. and *N. similis* sp. nov. are kept in the Institute of Tropical Forestry, Chinese Academy of Forestial Sciences. Remainder type specimens are deposited in the Institute of Zoology, Academia Sinica.

New species are briefly given as follows:

### 1. *Necydalis nigra* sp. nov. (fig. 1)

Male: black, sometimes the first segment of hind tarsi fuscous; the first four antennal segments, pronotum and legs with lustre. Body above sparsely clothed with erect hair, fine, alutaceous; metasternum with silver-gray hairs.

Length: 18—24 mm; breadth: 2—3 mm.

Holotype ♂, Jianfengling, Ledong Xian, Hainan 1350 m, 16. IV. 1984, by Gu Maobin. Paratypes 4♂, same locality as holotype, April 11—17, 1984, by Gu Maobin, Chen Zhiqing.

This species is similar to *N. ebenina* Bates in colour, distinguished chiefly by the fourth antennal segment shorter than scape; pronotum with a short longitudinal depression at middle.

### 2. *Necydalis similis* sp. nov. (fig. 2)

Male: Black, antennal scape, dilated portion of femoral apices and two or three apical segments of abdomen reddish brown; the seven apical segments of antennae and hind tibiae slightly fuscous; hind tarsi yellow. Body clothed with erect brownish hairs, metasternum with silver-gray hairs.

Length: 21.5—22.5mm; breadth: 2.5—3mm.

Holotype ♂, Jianfengling, Ledong Xian, Hainan, 1350 m, 11. IV. 1984, by Lin Youdong. Paratype 1♂, same locality as holotype, April 14, 1983, by Gu Maobin.

This species closely resembles the preceding new one, but the antennae, femora, hind tarsi and abdomen being differently coloured; pronotum coarsely punctured; elytra shorter than width between humeri.

### 3. *Necydalis inermis* sp. nov. (fig. 3)

Female: Body rather small, black, antennal scape reddish brown, sometimes partly black, the second to fourth and basal half of fifth segments and elytra brown, apical margins of elytra slightly black. abdomen with a transverse brown band at median of each segment of the first four segments, fifth segment of abdomen brown except basal margin black, individually the most part black. Legs yellowish brown, sometimes hind femora with black macula, tarsi or tibiae partly fuscous. Pubescence of body yellowish, slightly sericeous on elytra.

Length: 9.5—11 mm; breadth: 2.8—3.2mm.

Holotype ♀ (left antennae missing), Wuwei, Gansu, June 13, 1981, by Bai Junsheng. Paratypes 1♀, Wuwei, Gansu, June 13, 1981, by Bai Junsheng; 1♀, Tianzhu, Gansu, May 20, 1981, by Bai Junsheng; 1♀, Qilian, Qinghai, July 28, 1965, by Institute of Plant Protection, Academy of Agricultural Science, Qinghai.

Closely allied to *N. sericella* Ganglbauer from Sichuan, distinguished chiefly by the pronotal centre without a longitudinal carina; antennal scape longer than third segment; fore and middle legs without black macula. Differs from *N. sirexoides* Reitter in being body rather small; elytra longer than prothorax; abdomen with bicolor.

### 4. *Necydalis bicolor* sp. nov. (fig. 4)

Female: Deep brown, anterior and posterior margins and transverse depression of base of pronotum, anterior 2/3 of elytral suture as well as the three apical segments of abdomen black, the two basal segments of abdomen pale brown, with black macula or transverse black band. legs pale brown, median of femora, middle and hind tibiae, and tarsi blackish brown. Pubescence of body aureous. Elytral apex projecting in an acute angle.

Length: 21mm; breadth: 3.5mm.

Holotype ♀ (last left leg missing), Longsheng, Guangxi, 1150m, June 18, 1963, by Wang Shuyong.

Resembles *N. formosana* Kano in appearance, but the abdomen bicolor; third segment of antennae longer than fourth; pronotum slightly broader than long.

### 5. *Necydalis maculipennis* sp. nov. (fig. 5)

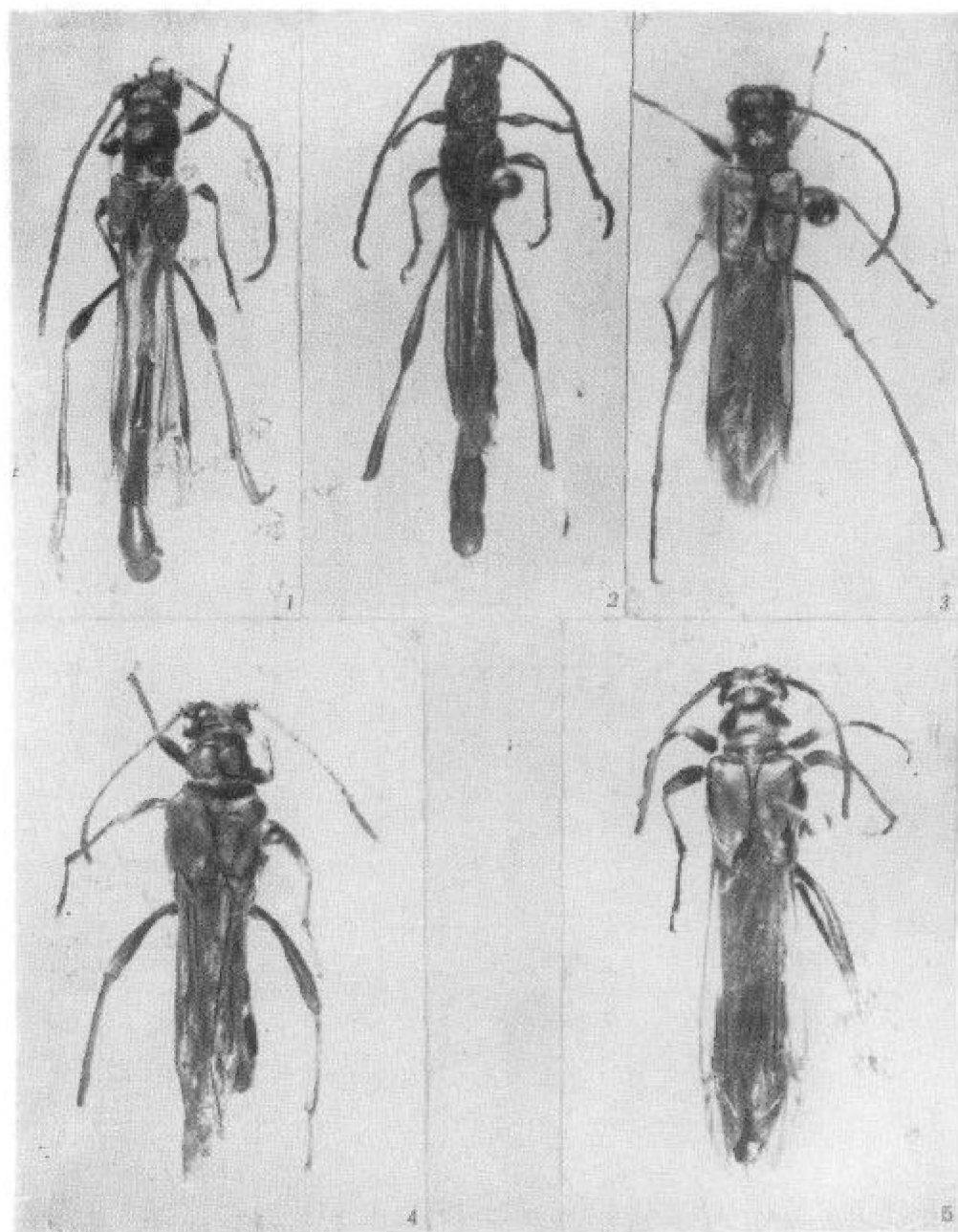
Female: Deep brown, each elytron with an obliquely black macula at median; anterior and posterior margins, and transverse depression of base and apex of pronotum, elytral suture, part metasternum as well as abdomen black; two basal segments of abdomen partly brownish. Pubescence of body aureous. Elytral apex projecting in an acute angle.

Length: 24.5mm; breadth: 4.5mm.

Holotype ♀ (hind tarsi incomplete), Zayu, Xizang, 2280m, July 26, 1973, by Huang Fusheng.

Closely allied to *N. bicolor* sp. nov., distinguished by the elytra with a black macula; pronotum slightly convex at both sides, with a fine longitudinal line in the middle.





1. 黑膜花天牛 *Necydalis nigra* sp. nov.;
2. 肖黑膜花天牛 *Necydalis similis* sp. nov.;
3. 缺脊膜花天牛 *Necydalis inermis* sp. nov.;
4. 两色膜花天牛 *Necydalis bicolor* sp. nov.;
5. 斑翅膜花天牛 *Necydalis maculipennis* sp. nov.